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U.S. War Production Board

Production charts, war production drive

[Washington]

[1942]

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U. S. *War production board.*

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PRODUCTION CHARTS

WAR PRODUCTION DRIVE

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War Production Drive Headquarters

WAR PRODUCTION BOARD, WASHINGTON, D. C.

UNITED STATES WPB WAR PRODUCTION BOARD

THE U. S. ARMY · THE U. S. NAVY · MARITIME COMMISSION · WAR PRODUCTION BOARD

WAR PRODUCTION BOARD
WASHINGTON, D. C.

To Members of the
Labor-Management Committee

A man does a better job when his enthusiasm is aroused.

In any game, competitive spirit gets the whole team on its toes.

That's why production charts prove such a great stimulus to plants and factories. The progress of your production is up there in plain sight, posted where all workers can see it.

The men become more conscious of the importance of their efforts. Progress on the chart takes on something of the competition of a game. Any man travels faster when he can see where he's going.

In this booklet you will find photographs of some very successful charts used by others. You will also find sketches that may suggest charts more appropriate for your particular plant.

If your business produces a single complete product—like a rifle—a production chart is easy to construct and keep up to date. It can be based on the number of units being made and delivered . . . or a percentage of contracts completed, if the figures themselves should not be public.

Most plants have a more complicated problem. They have contracts with several departments of the Army or Navy or the Maritime Commission. And they are manufacturing a variety of products. Or they may be making parts of a finished product—like shell casings, wing tips, radio connections.

What kind of a chart shall such a plant use . . . how can they show progress of all the individual items?

Following is a list of possible "common denominators" which might be considered in planning a chart for complicated operations:

Tons produced.

Man-hours.

Absenteeism.

Percentage of time (average on all contracts ahead of contractual obligations).

Deliveries ahead of schedule.

Increase in efficiency.

Production per man-hour.

Production per unit (machine or department).

Safety improvement.

Elimination of waste materials.

Percentage of deliveries on contracts.

Dollar volume increase.

Percentage of rejects.

Time saved per unit.

Decrease in spoilage.

Less time out for repairs.

If none of these can be made to fit your case, you can always build a chart on percentage of War Bond sales to employees.

Even this helps to make for healthy excitement and the urge to work harder as proved by actual experience in plants throughout the country.

At the next meeting of your Labor-Management Committee consider this important matter of plant charts. If you can't find a way to develop one that seems right for your plant, write us, describe the problem and we'll try to help solve it.

In the meantime set up a simple one to add enthusiasm to your War Bond sales drive. It can mean a noticeable stimulant to production now—when every ounce of effort is vital to winning the war!

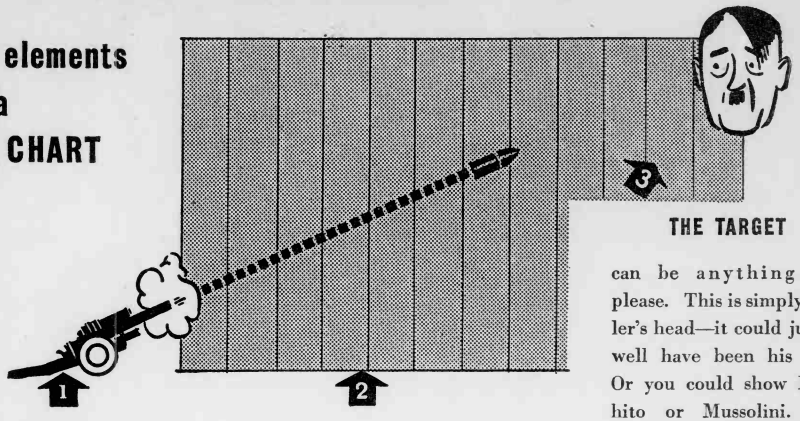
Look at the following photos and read the captions. Go thru the ideas in sketch form that follow them. Do they suggest any ideas for you?

Chances are you will dig up ideas of your own that are a darned sight better for your particular problem. If you develop a humdinger let us know about it, won't you? It may answer somebody else's problem.

War Production Drive Headquarters.

PRODUCTION CHART PRIMER

Three elements make a GOOD CHART



THE SYMBOL

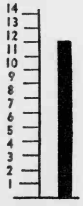
can stand either for the product you're making or for the product for which you make only parts. It shows everyone that you are in serious war production. Even the man turning out just a nut or bolt works harder if he thinks of his operation in terms of the finished job.

THE SCALE

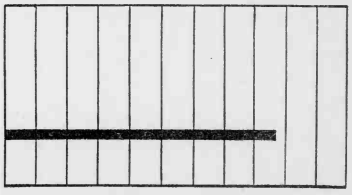
shows the progress of your production. Workers can see just how fast they are approaching the target.

THE TARGET

can be anything you please. This is simply Hitler's head—it could just as well have been his seat. Or you could show Hirohito or Mussolini. Or maybe all three gentlemen as a trio. Or a map of Axis nations. Or a Nazi or Jap soldier. Or maybe a "V" for Victory. Or just a plain bull's-eye. Use your own ingenuity. In any event, the target provides a visual goal to aim at.

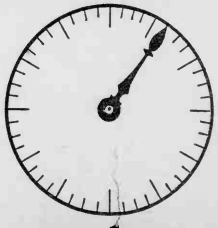


SIMPLE "THERMOMETER" CHART

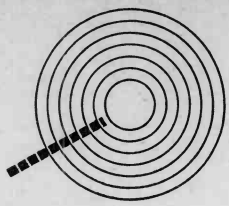


HORIZONTAL "BAR" CHART

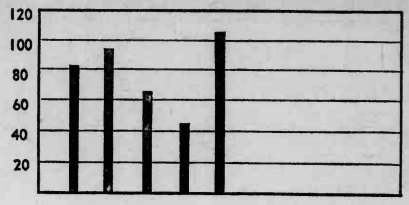
THE "GRAPH" CHART



"CLOCK" CHART



"TARGET" CHART



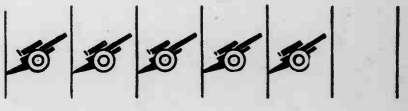
"COMPARISON" CHART

Make your symbols PICTORIAL

Everybody understands a picture. Lines or bars have a somewhat "technical" look. Instead of a line or a bar use a picture of a gun, a tank, a plane, or a ship, etc., to make your chart understandable to the simplest brain.

Rather than a line like this:

Use a pictorial symbol like this:

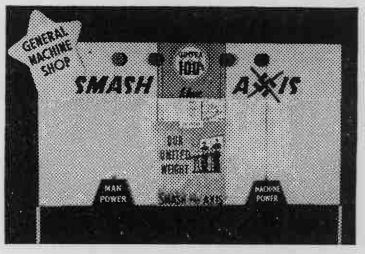


Each pictorial symbol can represent any unit you choose. For instance a gun can stand for 1 gun, 100 guns, or 1,000 guns. Or it can stand for some percentage of your production quota.

Here are a few obvious symbols. You can think of plenty more:

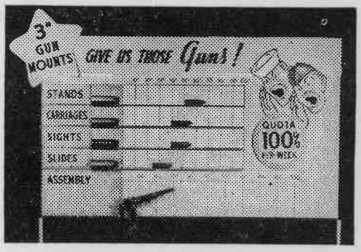
PRODUCTION CHARTS ALREADY IN USE

An interesting series of boards used by the Lewis Foundry & Machine Division of the Blaw-Knox Co., Pittsburgh, Pa. There are boards for various departments and also a recapitulation board which reports the progress of all departments. They are mechanized, three-dimensional boards 10 feet wide.

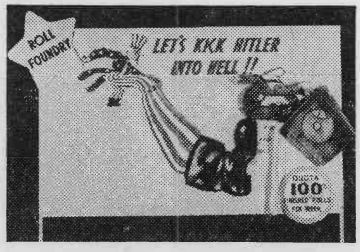


Two photographs of the "General Machine Shop" board. Arranged on a percentage quota basis. As production mounts during the week, the weights drop and gradually smash Hitler and Japan into oblivion.

A percentage quota board for "Roll Turning and Grinding." As Hitler is dragged through the rolls his finger points to the percentage of production achieved at that point. At 100 percent the elongated figure stretches across the board.

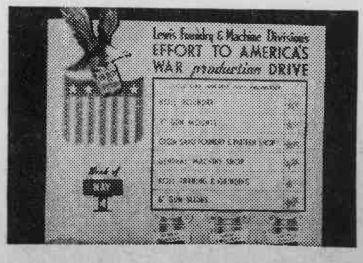


How to handle an item with several parts is well illustrated by the departmental board for "3-in. Gun Mounts." Notice that the parts have a section of the chart to themselves while assembly is also graphed.



On the "Roll Foundry" production board, Uncle Sam's boot kicks Hitler upward—as the week progresses—toward the ladle of molten metal. At 100 percent of quota Hitler is in the ladle.

Still another graphic way of showing progress toward a production quota. As production rises during the week, the rising sun of the Jap is made to "set" by the blackout board which moves upward.

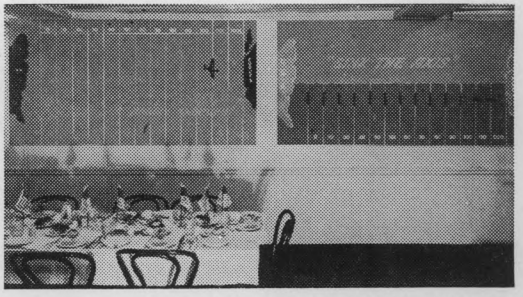


Recapitulation board of the Lewis Foundry & Machine Division. Tells at a glance the progress of all departments for the week.

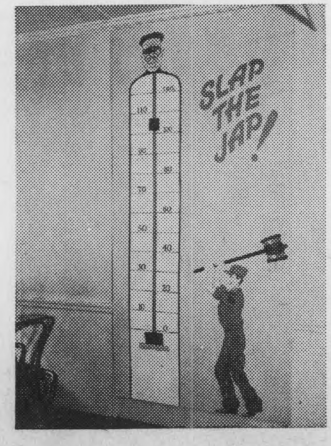
One of six boards in the Crosley plant at Cincinnati. Names of products manufactured in each department are lettered on guns at left. Bullets are added as departments approach quota for period. Object is for each department to drive bullets into Hitler after first disposing of Mussolini and Hirohito.

A "Quality Control Performance" board in the Crosley plant at Cincinnati. It's arranged so that each side can be changed to indicate size of scrap pile. As the pile decreases more planes and tanks can be shown. Competition is between departments producing materials for Ordnance Air Corps. Each day the ounces of scrap are posted at bottom of board.

A simple but colorful production scoreboard in the Lidgerwood Manufacturing Co.'s plant. The projectile shot from the gun shows the percentage of quota achieved for the date in question.



Two interesting production quota charts at the York Safe & Lock Co.'s cafeteria. In the one at the left every increase in production percentage carries the bomber nearer its mark. At the right, an enemy submarine is sunk and the wolf-pack driven farther from our shores.



←Showing how the ordinary bar-chart or thermometer chart can be made more pictorial and exciting by the use of a little imagination. Every stage of production hammers the weight closer to the Jap. York Safe & Lock Co.

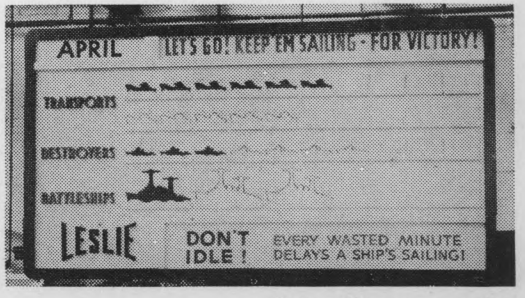
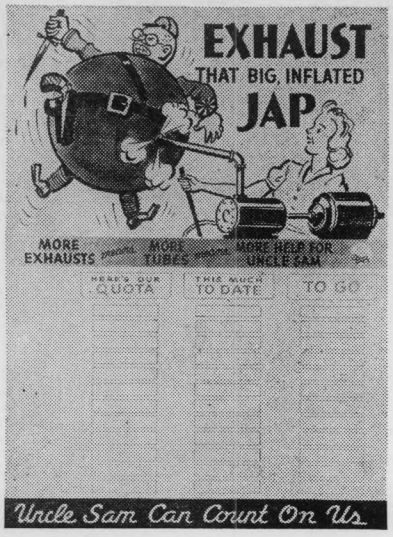
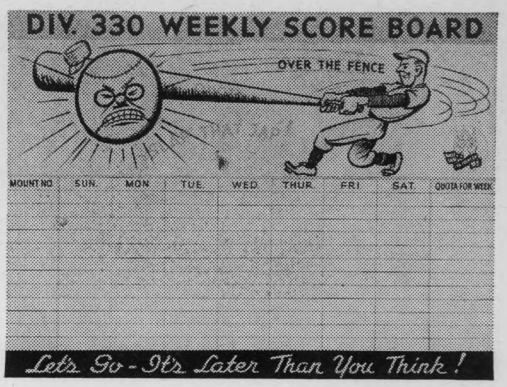


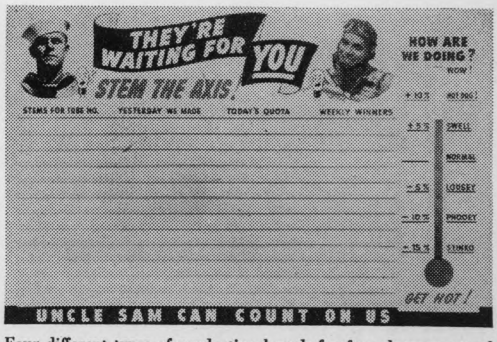
Chart used by a company making pressure equipment for boats. Each filled-in unit indicates completed equipment for one boat of that class. Leslie Co., Lyndhurst, N. J.



A



B



C

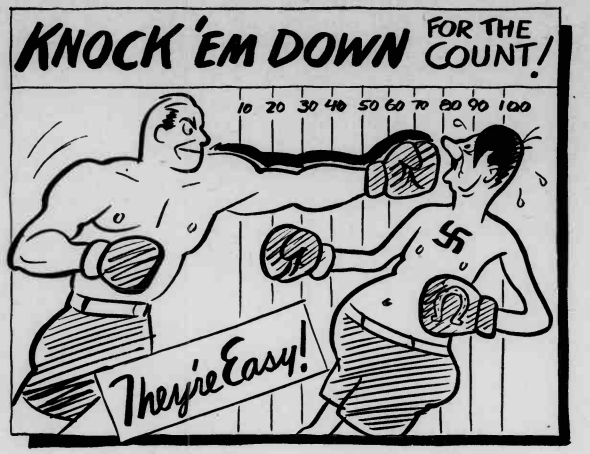
D

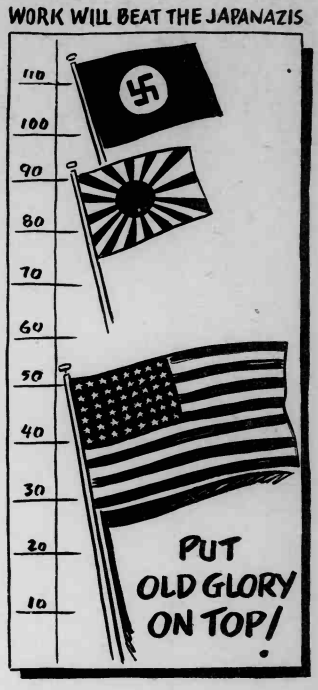
Four different types of production boards for four departments of the Lamp Division of the Westinghouse Electric & Mfg. Co., at Bloomfield, N. J. "A" and "B" are simply statistical. "C" has a thermometer which is changed daily to indicate the pace of production. In "D" the tubes move toward the bombing of Tokio as production increases.

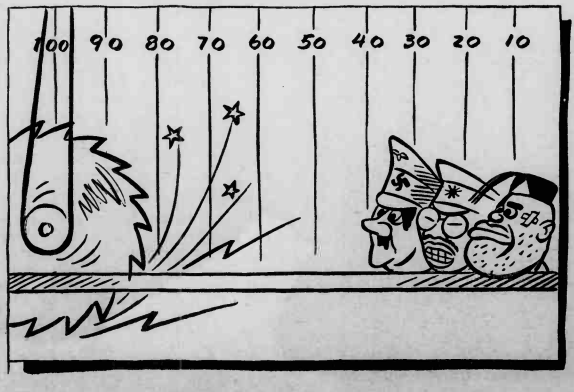
E

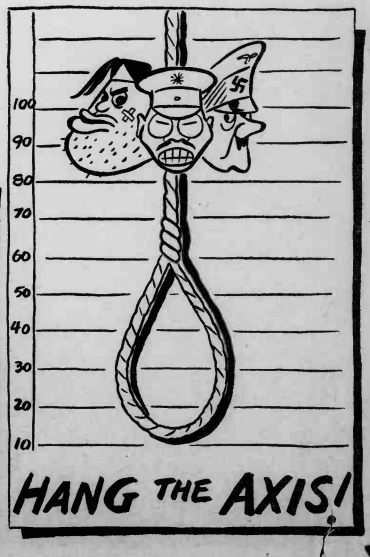
Recapitulation board for Special Products Division of the Westinghouse Electric & Mfg. Co. lamp department. Products of each department are listed at bottom. Alongside is a set of colored lights. Green flashes indicate "Looks like we'll do it." Red flashes warn "Behind schedule—Let's get going." An orange light signals "We did it last month." As production rises in each department a bayonet moves toward the dictators' figures at top of column.

SOME NEW IDEAS THAT MAY STIMULATE YOU

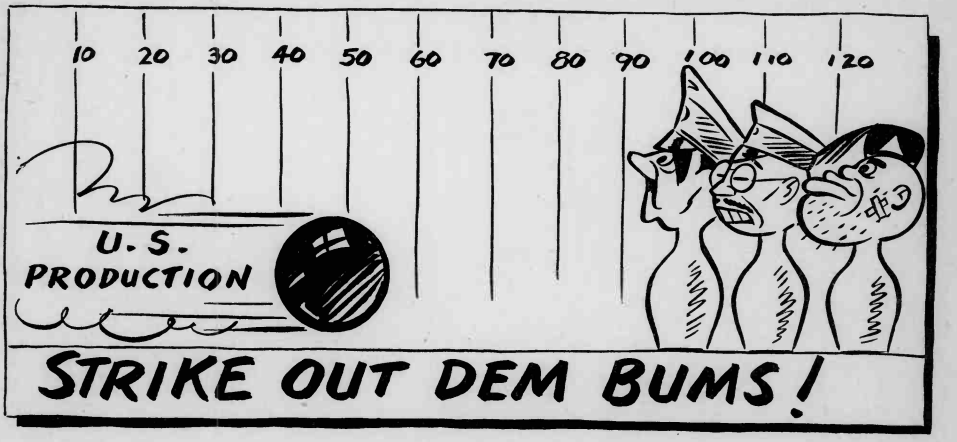


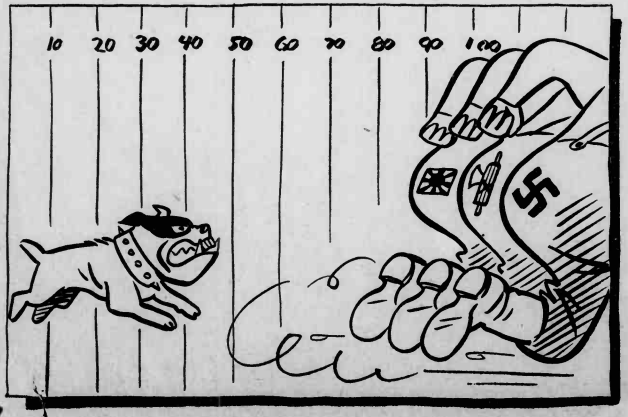






U.S. PRODUCTION
MAKE 'EM JUMP!


10 20 30 40 50 60 70 80 90 100 110 120
U.S. PRODUCTION
STRIKE OUT DEM BUMS!


10 20 30 40 50 60 70 80 90 100

S.S. AXIS
SINK THE AXIS!

WHAT YOU DO NOW—THIS MINUTE—as a result of reading this book—may affect the course of the war!

You have read how Labor-Management Committees in other war plants have performed miracles of production through the stimulus of competitive scoreboards and other such ideas.

What are you going to do about it in your own plant, NOW?

You can throw this book away and forget all about it. Maybe nobody will ever know. But if you do, American lives may be lost that could have been saved. Somewhere in the wide world America may lose a battle that might have been won.

Are you willing to give these ideas a trial? Do you want to help? If you do, speed is essential. Call a Labor-Management meeting NOW and get things started.

In this book are ideas that you are free to copy exactly. Or, if they don't just fit the conditions in your own plant, change them around until they do. Use some American ingenuity.

Above all—don't put it off. It's a matter of life and death.

Your country asks you to DO IT NOW.

WAR PRODUCTION DRIVE HEADQUARTERS
WAR PRODUCTION BOARD
WASHINGTON, D. C.

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